

10 Rec'd PCT/PTC 28 SEP 2004

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

REC'D 23 JUL 2004

WIPO PCT

Applicant's or agent's file reference SP1016 GL.be	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 02/08698	International filing date (day/month/year) 05.08.2002	Priority date (day/month/year) 29.03.2002
International Patent Classification (IPC) or both national classification and IPC G01N30/06		
Applicant MARABINI, Silvia et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
  
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
 

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:
 

I    ☒ Basis of the opinion

II   ☐ Priority

III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability



IV   ☐ Lack of unity of invention

V    ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

VI   ☐ Certain documents cited

VII ☐ Certain defects in the international application

VIII ☐ Certain observations on the international application

Date of submission of the demand  23.10.2003	Date of completion of this report  22.07.2004
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Müller, T  Telephone No. +49 89 2399-2285 <div style="text-align: right;">  </div>

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/EP 02/08698**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1, 3-9 as originally filed  
2, 2bis received on 05.07.2004 with letter of 01.07.2004

**Claims, Numbers**

6 (part), 7-11 as originally filed  
1-5, 6 (part) received on 05.07.2004 with letter of 01.07.2004

**Drawings, Sheets**

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-11
	No: Claims	
Inventive step (IS)	Yes: Claims	1-11
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

**see separate sheet**

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EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP02/08698

Reference is made to the following document:

D1: KHEMANI K C: 'A novel approach for studying the thermal degradation, and for estimating the rate of acetaldehyde generation by the chain scission mechanism in ethylene glycol based polyesters and copolyesters' POLYMER DEGRADATION AND STABILITY, BARKING, GB, vol. 67, no. 1, January 2000 (2000-01), pages 91-99, XP004294838 ISSN: 0141-3910

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**Technical field:**

The application is related to a device and a method for extracting and determining acetaldehyde content of polyethylene terephthalate (PET) products and preforms thereof. The current approach comprises sample preparation by cryogenic grinding of the preform a gas chromatographic analysis by the head space technique.

**Problem:**

The problem to be solved is to reduce analysis time and costs and to enable it to be performed in proximity to or within an actual production plant.

**Solution:**

Method and device according to claims 1 and 6, wherein the sample is prepared in a desorption cell, then charged to a loop and subsequently analysed in a gas chromatograph.

**Novelty and inventive step:**

Closest prior art document D1 discloses a device for studying the thermal degradation PET based polyesters and estimating the rate of acetaldehyde generation, wherein the cycle time for each measurement is approximately 20 minutes. D1 discloses an aluminium boat in an oven for sample preparation, a cold trap, valve means, a gas chromatograph and a detector. The valves and the oven are automatically programmed, see page 92 and figure 1. The arrangement of and employment of means for scavenging the desorption cell, means for heating and means for pressurizing the

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sample with the subsequent loop as in present claims 1 and 6 is not disclosed or hinted in D1.

As a consequence the subject-matter of claims 1 and 6 is new and inventive over the available prior art (Article 33 PCT).

Claims 2-5 and 7-11 are dependent claims and do also meet the requirements of the PCT.